

**IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE**

Patent Application

Inventors: Govinda Nallappa Rajan Case No.: Rajan 2
Serial No.: 09/782,101 Group Art Unit: 2633
Filing Date: February 12, 2001 Examiner: Nathan M Curs
Title: Methods Of And Arrangements For Buffering Digital Optical Signals

DECLARATION UNDER 37 C.F.R. 1.132

I, Govinda Nallappa Rajan, of Huizen in the country of The Netherlands, do solemnly and sincerely declare as follows:

- 1) I received a Bachelor of Engineering (Honors) degree from Anna University, College of Engineering in Guindy, India in 1984. Before joining Lucent Technologies, I worked on research projects in medical technology in Erasmus University, Rotterdam, Netherlands, and Lenox Hill Hospital, New York, New York. Since 1998, I have been doing research and development in telecommunications as a member of the technical staff at Bell Laboratories, Lucent Technologies Nederland BV having an address of Larensweg 50, Hilversum, Netherlands, and being a subsidiary of Lucent Technologies Inc. My areas of research and development work at Bell Laboratories include Optical Networks architectures, data networks, security and self-organizing networks.
- 2) I am inventor of the above-referenced U.S. Patent Application.
- 3) I have reviewed U.S. patent 4,608,682 (Herein referred to as "Nagashima"). I have reviewed the numbered paragraphs 1 to 5 of the US Patent Office Examiner's letter that includes the words "This action is made final" in respect of the above-referenced U.S. patent application.
- 4) In figure 3b of Nagashima, the injection current has to be maintained at or above i_b to use the bi-stable properties (hysteresis) of the laser. If the current is less than i_b , then the upper stable level (B) cannot be reached. Specifically, as also shown in 3c, where the operation of the laser is shown by two input values P_0 and P_1 while the injection current is maintained at i_b , this means that if the input is high (P_1), the laser reaches the stable state of B and then consequently when the input is low (P_0) then the laser would indefinitely remain in the stable high state of B. The laser can only be reset to state A, by changing i_b to i_0 or lower.